Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims - 1- 4 (canceled)

5. (withdrawn) A software control method comprising:
displaying a graphical user interface manipulator comprising quadrants, wherein each quadrant comprises a programmable interactive device;
associating each quadrant with a direction in relation to an orthogonal axis;
activating an interactive device comprising a quadrant; and
rotating a projection plane of a computer generated model a predetermined number of degrees in a predetermined direction around an orthogonal axis associated with a selected quadrant.

6. (withdrawn) The software control method of claim 5 additionally comprising:
displaying a programmable interactive button;
activating the programmable interactive button; and
displaying a visualization of a computer generated model responsive to activation of the programmable interactive button.

7. (withdrawn) A graphical manipulator software tool comprising:
a graphical user interface object comprising quadrants, wherein each quadrant is associated with a direction in relation to an orthogonal axis; and
a programmable interactive device corresponding with a quadrant and responsive to activation by a pointing device, wherein activation of the interactive device causes a projection plane of a computer generated model to rotate a predetermined number of degrees in a predetermined direction.

8. (withdrawn) A projection plane manipulator software tool comprising:
a user interactive device tracking the circumference of a circle displayed on a computer screen with a computer generated model, wherein selecting the interactive device and rotating it in a clockwise or counter-clockwise direction will cause a projection plane of the computer generated model to rotate about an axis which is perpendicular to the projection screen.

9. (withdrawn) The projection plane manipulator software tool of claim 8 additionally comprising:
an interactive menu for selecting a mode of operation governing the rotation of the interactive device about the circumference of the circle.

10. (withdrawn) The projection manipulator software tool of claim 9 wherein the mode of operation comprises free hand rotation.

11. (withdrawn) The projection manipulator software tool of claim 9 wherein the mode of operation comprises incremental rotation.

12. (withdrawn) The projection manipulator software tool of claim 9 wherein the mode of operation comprises entering an angle of rotation.

Claims - 13- 15 (canceled)

16. (withdrawn) A method of creating an isometric view of a computer generated model of an object, the method comprising:
selecting an initial projection plane;
activating a user interactive device on a graphical view manipulator causing the projection plane to rotate a first amount not equal to 90° around an axis that is perpendicular to the current projection plane;
activating a first quadrant on a graphical view manipulator causing the projection plane to rotate by 90° around one of two orthogonal axis of the model;
activating a second user interactive device on a graphical view manipulator causing the projection plane to rotate a second amount not equal to 90° around an axis that is perpendicular to the

current projection plane; and

activating a second quadrant on a graphical view manipulator causing the projection plane to rotate by 90° around a second of two orthogonal axis of the model.

17. (withdrawn) The method of claim 16 wherein the first interactive device is a rotational arrow interactive device.

18. (withdrawn) The method of claim 16 wherein the first interactive device is a manipulator pin.

19. (withdrawn) An interactive software tool comprising:

a graphical user interface object comprising quadrants, wherein each quadrant is associated with a direction in relation to an orthogonal axis;

a first programmable interactive device corresponding with a quadrant and responsive to activation by a pointing device, wherein activation of the first interactive programmable interactive device causes a projection plane of a computer generated model to rotate a predetermined number of degrees in a predetermined direction;

a second programmable interactive device tracking the circumference of a circle displayed on a computer screen with a computer generated model, wherein selecting the second interactive device and rotationally moving the second interactive device will cause a projection plane of the computer generated model to rotate about an axis which is perpendicular to the projection screen;

an interactive menu for selecting a mode of operation governing the rotation of the interactive device about the circumference of the circle; and

a third interactive device displayed on the computer display, wherein activation of the third interactive device displays a visualization of the projection of the model with a projection plane equal to the plane of the computer display.

20. (canceled)

21. (withdrawn) Computer executable code stored on a computer readable medium, the code causing a computer to take steps comprising:

selecting an initial projection plane of a three-dimensional model;

activating a user interactive device on a graphical view manipulator causing the projection plane to rotate a first amount not equal to 90° around an axis that is perpendicular to the current projection plane;

activating a first quadrant on a graphical view manipulator causing the projection plane to rotate by 90° around one of two orthogonal axis of the model;

activating a second user interactive device on a graphical view manipulator causing the projection plane to rotate a second amount not equal to 90° around an axis that is perpendicular to the current projection plane; and

activating a second quadrant on a graphical view manipulator causing the projection plane to rotate by 90° around a second of two orthogonal axis of the model.

22. (currently amended) A computer system operation method for displaying a computer-generated three-dimensional model of an object on a display, the method comprising the steps of:

converting the computer-generated three-dimensional model of the object to a computer-generated two-dimensional visualization of the object, said computer-generated three-dimensional model of the object being in one of a plurality of projection planes and said computer-generated two-dimensional visualization of the object being in a first selected projection plane from said plurality of selection planes;

receiving a second selected projection plane for said two-dimensional visualization;

displaying said two-dimensional visualization in said second selected projection plane; and

generating the projection of said three-dimensional model in said second selected projection plane after said two-dimensional visualization in said second selected projection plane has been displayed.

23. (previously presented) The method of claim 22 wherein the display of the two dimensional visualization is limited to pixel data.

Claims - 24- 25 (canceled)

26. (currently amended) The method of claim 22, wherein said steps of receiving a second selected projection plane and

displaying said two-dimensional visualization in said second selected projection plane are iteratively repeated, and wherein the step of ~~converting the~~ generating the projection of said three-dimensional model of the object ~~to a two-dimensional visualization of the object~~ in said second selected projection plane includes the step of:

receiving an approval for said second selected projection plane; and

displaying said three-dimensional model in said second selected projection plane after receiving said approval.

27. (currently amended) The method of claim 22, wherein the step of receiving a second selected projection plane includes the step of:

providing a manipulator tool button for selecting said second projection plane.

28. (currently amended) The method of claim 27, wherein said manipulator tool includes a plurality of quadrants, each of said plurality of quadrants representing a predetermined number of degrees of rotation in a predetermined direction around an orthogonal axis, wherein the step of receiving a second projection plane includes the step of:

receiving a selected one of said plurality of quadrants; and

rotating said first selected projection plane said predetermined number of degrees and in said predetermined direction around said orthogonal axis associated with said selected quadrant.

29. (currently amended) The method of claim 28, wherein said manipulator tool includes a programmable interactive button and wherein the step of displaying said two-dimensional visualization in said second selected projection plane includes the step of:

displaying said two-dimensional visualization in said second selected projection plane in response to an activation of the programmable interactive button.

30. (currently amended) A projection plane manipulator tool for manipulating a projection plane wherein a computer-generated three-dimensional model of an object is converted to a two-dimensional visualization of the object and said two-dimensional visualization of the object is displayed on a computer screen in a first selected projection plane, said first selected projection plane associated with said two-dimensional visualization being manipulated to a second selected projection plane and wherein said three-dimensional model is thereafter projected in said second selected projection plane, said projection plane manipulator tool comprising:

a user interactive device tracking the circumference of a circle displayed on said computer screen, wherein selecting the interactive device and rotating it in a clockwise or counter-clockwise direction will cause said first projection plane to rotate about an axis which is perpendicular to the computer screen.

Claims - 31- 41 (canceled)

42. (currently amended) Computer executable code stored on a computer readable medium, the code causing a computer to take steps comprising:

displaying a computer generated three-dimensional model of an object on a display in one of a plurality of projection planes;

converting the three-dimensional model of said object to a computer generated two-dimensional visualization of the object, wherein said ~~three-dimensional model~~ computer generated two-dimensional visualization is in a first selected projection plane from said plurality of selection planes;

receiving a second selected projection plane associated with said two-dimensional visualization;

displaying said two-dimensional visualization in said second selected projection plane; and

generating the projection of said three-dimensional model in said second selected projection plane after said two-dimensional visualization in said second selected projection plane has been displayed.

43. (previously presented) The projection plane manipulator tool of claim 30 wherein selecting the interactive device is accomplished by clicking a pointing device controlling a cursor while the cursor is positioned over the interactive device.

44. (previously presented) The projection plane manipulator tool of claim 30 wherein the user interactive device is incorporated into a graphical manipulator software tool.